Trichobezoar

a rare cause of acute bowel obstruction

Mohamed S. Al-Skaini, *MBBS, A.F.CHI(PhD),* ***Mohamed I. Seleem,*** *MBBCh, FRCSI.*

ABSTRACT

A surgically successfully treated case of (2.8kg) Trichobezoar presenting with severe epigastric pain, vomiting, associated with anemia and dark stool of one days duration. Complicated on admission by an acute intestinal obstruction. There has been no report of such a case from Saudi Arabia up to the present time. The presenting symptoms and signs, and management strategies are discussed.

Keywords: Trichobezoar, anemia, provisional diagnosis, management, complication.

Saudi Medical Journal 2000; Vol. 21 (6): 585-586

The term 'bezoar' is derived from the Arabic word 'badzehr' or the Persian word 'padzehr' meaning protection against poisons (antidote). Trichobezoars are uncommon foreign bodies usually composed mainly of hair and food particles found impacted and forming a cast in the stomach or small intestine. Other, less common forms of bezoars that have been reported include those of fruit and vegetable fibers (phytobezoar), antacids, pitch, animal fat, shellac, and latex.[1] The first report of trichobezoar was published in 1779 by Bandamant.[2] Successful surgical removal was first carried out in 1883 by Schonborn.[3] Stelzner is believed to have been the first to record a correct preoperative diagnosis of a trichobezoar in 1896.[4]

Case Report. A twenty year old lady, presented to the emergency room with a history of severe epigastric pain, vomiting of one weeks duration, associated with anemia and dark stool for one days duration. Her past medical history was uneventful.

Physical examination findings. She had pallor, was anxious, tachycardia of pulse rate 120/min. Blood pressure 130/80 mmHg. Systemic examination revealed a non tender mass in the epigastrium and left upper quadrant of the abdomen. There was neither hepatomegally nor lymphadenopathy. Her hemoglobin was 6.6 g/l, white blood cell count 6.500/l, Platelet 144000/l. She was admitted under the care of the medical team as a case of anemia with splenomegally for investigation. On the same day, the patient underwent an ultrasound of the abdomen which showed some diffuse splenic enlargement and normal liver and kidneys. Next day the patient underwent barium meal which revealed grossly dilated stomach reaching into the pelvis and huge intra-gastric mass, a -J- shaped cast of the stomach with a fine reticular network pattern presumably ball of hair (trichobezoar). Then she underwent upper gastrointestinal tract endoscopy which revealed gastric granulomatus polyps bleeding on touch and a huge ball of hair.

From the Department of Surgery, Armed Forces Hospitals Southern Region, Khamis Mushayt, Kingdom of Saudi Arabia.

Received 29th January 2000. Accepted for publication in final form 25th March 2000.

Address correspondence and reprint request to: Dr. M. Al-Skaini, Consultant General Surgery and Endoscopy, Department of Surgery, Armed Forces Hospitals Southern Region, PO Box 101, Khamis Mushayt, Kingdom of Saudi Arabia. Tel/Fax No. +966 (7) 2350121.

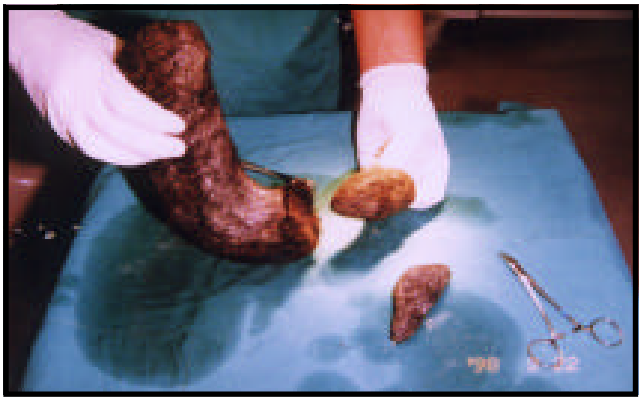

Figure 1 - The huge trichobezoar was taking gastric shape and the displaced part which induced an acute intestinal obstruction.

The patient was referred to the surgeon, and at the same time the patient developed an acute intestinal obstruction. The patients condition was corrected by blood transfusion and she underwent laparotomy, a 2.8Kg, large hair ball extending from the gastric fundus up to the duodenum was removed via a longitudinal gastrotomy incision and a small daughter hair ball (which had migrated downward into the small bowel and induced acute intestinal obstruction) was removed via entrotomy (Figure 1). The patient had an uneventful post operative recovery and was seen by the Psychiatrist. She was discharged home 14 days later with follow up in the surgical and psychiatric outpatient clinics.

Discussion. Single pieces of hair cannot be moved distally by peristaltic activity and diet, in particular, pasty food favors the formation of hair balls in the stomach.[1,5] Trichobezoars consist of a mass of ingested hair combined with other fibres, and occur in young women (90%), including some with mental disorders and a history of trichophagia.[1] Portions of the trichobezoar may separate from the gastric mass, and as 'daughter balls' migrate distally, and obstruct the small bowel.[6] Strands of hair may extend ally long strands have been observed to descend from the stomach as far as the transverse colon (Rapunzel syndrome).[7] The initial signs and symptoms of bezoar simulate those of an abdominal tumor and include a firm epigastric mass (87%), tenderness to palpation, vomiting, and weight loss.[1] The diagnosis often rests on the suspicion of the alert physician since most patients will not volunteer to give a history of swallowing hair. Ultrasonographic diagnosis of such cases may be relatively specific as in our presenting case.[8] Barium meal examination is usually the initial study when the history and physical finding do not suggest the diagnosis. More recently, bezoars have also been diagnosed easily with endoscopy.[9] Surgical treatment is the only option in complicated trichobezoar cases, as in our case. The use of metoclopramide may reduce the incidence of recurrence.[10]

Complications associated with trichobezoar are frequent.[11] The perforation of the small bowel is uncommon. About 10% of patients with trichobezoar have a gastric ulcer, due to increased acid secretion, which may perforate. Those associated with perforation carry a risk of high mortality rate probably due to severe peritonitis. Transient pancreatitis is believed to be induced by the trichobezoar tail because of irritation of the ampulla of Vater.[12]

In conclusion, although the trichobezoar is a rare condition, we are presenting our case to consider such a diagnosis in mental disorder patients with upper epigastrium mass associated with vomiting and weight loss. We believed that endoscopy is the best investigation to role out the suspicion. Treatment should focus on prevention of recurrence, since elimination of the mass will not alter the condition contributing to their formation and Psychiatric assistance should be sought.

References

1. DeBakey M, Ochsner A. Bezoars and concretion: Comprehensive review of literature with analysis of 303 cases and presentation of 8 additional cases. Surgery 1939; 4: 132-210.
2. Baudamant WW. Memoire sur des cheveux trouves dans l'estomac et dans les intestins greles. J Med Chir Pharm 1779; 52: 507-514.
3. Beck AR, Kim SK. Multiple small bowel perforations: Unusual complication of trichobezoar. Mt Sinai J Med 1972; 39: 293-299.
4. Stelzner S. Haargeschwulst in Magen. Chirurgenkongr Zentralbl Chir 1896; 31: 121.
5. Mitchell HS, Bradshaw PJ, Carlson ER. Hairball formation in relation to food consistency. Am J Physiol 1924; 68: 203-206.
6. Booth IW, Harries JT, Glaser DR, et al. Multiple trichobezoars and laparotomies. J R Soc Med 1981; 74: 691-692.
7. Deslypere JP, Verdonk G. An unusual case of the trichobezoar: the Rapunzel syndrome. Am J Gastroenterol 1982; 77: 467-470.
8. McCracken S, Jongeward R, Silver TM, Jafri SZ. Gastric trichobezoar: Sonographic findings. Radiology 1986; 161: 123-124.
9. Dietrich NA, Gau FC. Postgastrectomy trichobezoars: endoscopic diagnosis and treatment. Arch Surg 1985; 120: 432-435.
10. Winkler WP, Saleh J. Metoclopramide in the treatment of gastric bezoars. Am J Gastroenterol 1983; 78: 403-405.
11. Harris VJ, Hanley G. Unusual features and complications of bezoars in children. AJR Am J Roentgenol 1975; 123: 742-745.
12. Shawis RN, Doig CM. Gastric trichobezoar associated with transient pancreatitis. Arch Dis Child 1984; 59: 994-995.